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Title: Semiconductor Package with Integrated Heat Spreader Attached to a

Thermally Conductive Substrate Core

Inventor(s):

Timothy M. Takeuchi

Atty. Docket No.:

42390P13557

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FABRICATE A PACKAGE SUBSTRATE HAVING TOP AND BOTTOM SURFACE BUILDUP LAYERS DISPOSED ON A THERMALLY CONDUCTIVE SUBSTRATE CORE

EXPOSE A PORTION OF THE SUBSTRATE CORE AT A TOP SURFACE OF THE PACKAGE SUBSTRATE TO ALLOW FOR ATTACHMENT OF A HEAT SPREADER

MOUNT AN INTEGRATED CIRCUIT TO THE TOP SURFACE OF THE PACKAGE SUBSTRATE WITH A TOP SURFACE OF THE INTEGRATED CIRCUIT FACING DOWN

ATTACH A HEAT SPREADER TO THE PACKAGE SUBSTRATE, THE HEAT SPREADER THERMALLY COUPLED TO THE EXPOSED PORTION OF THE SUBSTRATE CORE AND TO A BACKSIDE SURFACE OF THE INTEGRATED CIRCUIT

Figure 1

106

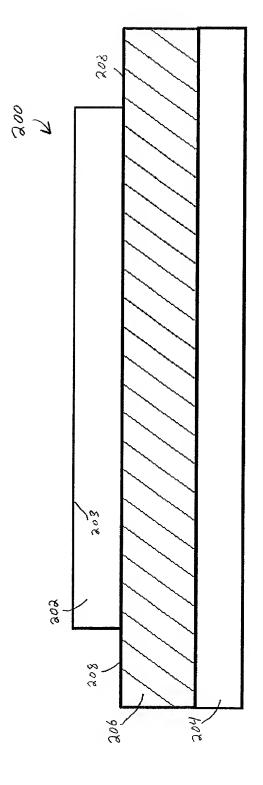
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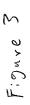




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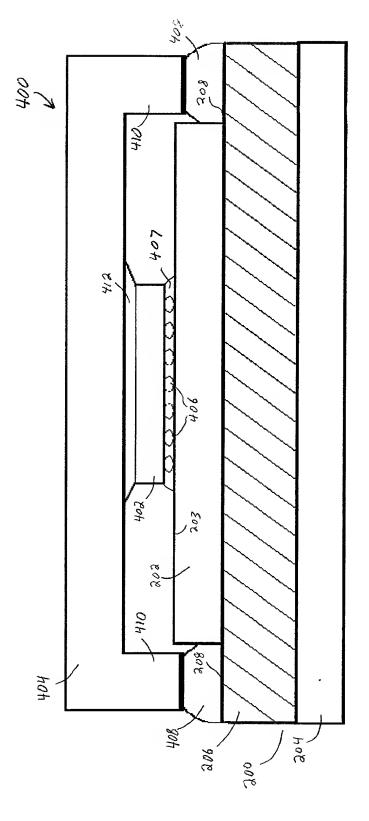
Thermally Conductive Substrate Core
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Timothy M. Takeuchi 42390P13557

Inventor(s):

Atty. Docket No.:

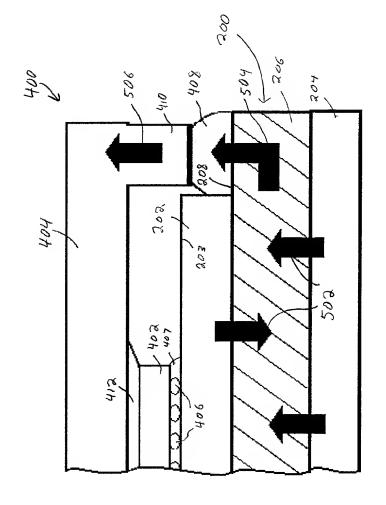
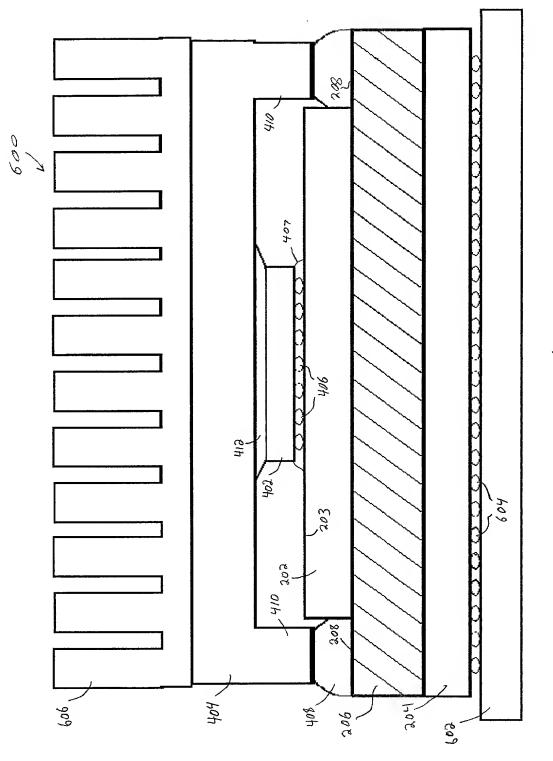


Figure 5

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Timothy M. Takeuchi

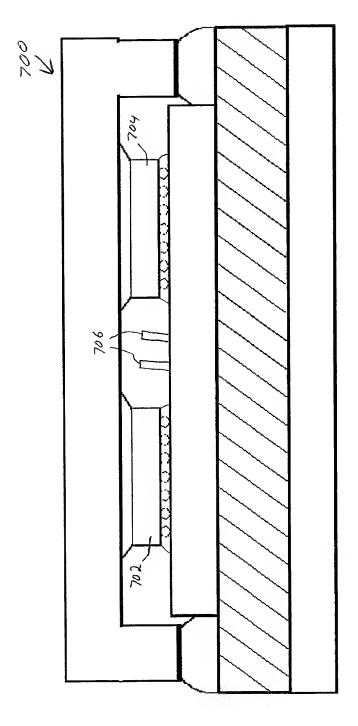


Figure 7

